JOURNAL OF PROTEIN CHEMISTRY

Volume 13, Number 1 **January 1994**

CONTENTS

Effect of Covalent Labeling of Dextran-Benzenehexacarboxylate on Hemoglobin 1
Daniel Sacco, Edith Dellacherie, and Florence Prouchayret

Abalone Myoglobins Evolved from Indoleamine Dioxygenase: the cDNA-Derived Amino Acid Sequence of Myoglobin from *nordotis madaka* 9
Tomohiko Suzuki

The Chaperonin Assisted and Unassisted Refolding of Rhodanese Can Be Modulated by It's N-Terminal Peptide 15
Jose A. Mendoza and Paul M. Horowitz

Automethylation of Protein (D-Aspartyl/L-Isoaspartyl) Carboxyl Methyltransferase, a Response to Enzyme Aging 23
Jonathan A. Lindquist and Philip N. McFadden

Primary Structure of the Major Glycan from Human Seminal Transferrin 31
Gabriele D'Andrea, Anna M. D'Alessandro, M. Luisa Salucci, and Arduino Oratore

Mapping the Extracellular Topography of the a-Chain in Free and in Membrane-Bound Acetylcholine Receptor by Antibodies Against Overlapping Peptides Spanning the Entire Extracellular Parts of the Chain 37
M. Zouhair Atassi, and Biserka Mulac-Jericevic

Covalent Structure of Botulinum Neurotoxin Type A: Location of Sulfhdryl Groups, and Disulfide Bridges and Identification of C-Terminal of Light and Heavy Chains 49
Kerstin G. Krieglstein, Bibhuti R. DasGupta, and Agnes H. Henschen

Isolation and Characterization of Sets of Anti-L-Fucose and Anti-Bovine Serum Albumin Antibodies Directed Against a Glycoconjugate of L-Fucose and Bovine Serum Albumin 59
John H. Pazur, Belin Liu, and Timothy F. Witham

Residues 377–389 from the δ Subunit of *Torpedo californica* Acetylcholine Receptor are Located in the Cytoplasmic Surface 67
Bernardo Perez-Ramirez, Ana Iriarte, and Marino Martinez-Carrion

Structure and Orientation of Apo B-100 Peptides into a Lipid Bilayer 77
Laurence Lins, Robert Brasseur, Maryvonne Rosseneu, Chao-Yuh Yang, Doris A. Sparrow, James T. Sparrow, Antonio M. Jr. Gotto, and Jean-Marie Ruysschaert

Trapping Succinimides in Aged Polypeptides by Chemical Reduction 89
Darrick A. Carter and Philip N. McFadden

Determination of B-Isomerized Aspartic Acid as the Corresponding Alcohol 97
Darrick A. Carter and Philip N. McFadden

Porcine Liver Low M_r Phosphotyrosine Protein Phosphatase: The Amino Acid Sequence 107
Anna Casselli, Luigia Pazzagli, Paolo Paoli, Giampaolo Manao, Guido Camici, Gianni Cappugi, and Giampietro Ramponi

Cloning of an Apamin Binding Protein of Vascular Smooth Muscle 117
Patriciia T. Sokol, William Hu, Lynda Yi, Joyce Toral, Manik Chandra, and M. Reza Ziai

Substitution of the Amino Acid At Position 102 with Polar and Aromatic Residues Influences Substrate Specificity of Lactate Dehydrogenase 129
David J. Nicholls, Margaret Davey, Susan E. Jones, Julie Miller, J. John Holbrook, Anthony R. Clarke, Michael D. Scawen, Tony Atkinson, and Christopher R. Goward

Neuropeptide Y Acylation Chemistry in Aqueous Solution: Significance to Synthesis of a Peptide-Based Photoaffinity Label 135
Longqin Hu and Michael B. Doughty

ANNOUNCEMENT 141

JOURNAL OF PROTEIN CHEMISTRY

Volume 13, Number 2 **February 1994**

CONTENTS

Conformation Changes of β-Lactoglobulin: An ATR Infrared Spectroscopic Study of the Effect of *p*H and Ethanol 143
Eric Dufour, Paul Robert, Dominique Bertrand, and Tomasz Haertle

Complete Amino Acid Sequence of the *Glycera dibranchiata* Monomer Hemoglobin Component IV: Structural Implications 151
Steven L. Alam, James D. Satterlee, and Charles G. Edmonds

Use of N,N′-Polymethylenebis (Iodoacetamide) Derivatives as Probes for the Detection of Conformational Differences in Tubulin Isotypes 165
Jyotsna Sharma and Richard F. Ludueña

Regulatory Role of GDP in the Phosphoenzyme Formation of Guanine Nucleotide: Specific Forms of Succinyl Coenzyme A Synthetase 177
Hong-Duck Um and Claudette Klein

The Amino Acid Sequence and Reactive Site of a Single-Headed Trypsin Inhibitor from Wheat Endosperm 187
Elia Poerio, Carlo Caporale, Lucia Carrano, Carla Caruso, Francesco Vacca, and Vincenzo Buonocore

Contribution of Unusual Arginine-Arginine Short-Range Interactions to Stabilization and Recognition in Proteins 195
A. Magalhaes, B. Maigret, J. Hoflack, J. N. F. Gomes, and H. A. Scheraga

Reconstitution of Heterologous and Chimeric Casein Kinase II with Recombinant Subunits from Human and *Drosophila*: Identification of Species—Specific Differences in the β Subunit 217
Wey-Jing Lin, Rolf Jakobi, and Jolinda A. Traugh

Conformation of the Transmembrane Domain of the Epidermal Growth Factor Receptor 227
Paul W. Brandt-Rauf, Regina Monaco, and Matthew R. Pincus

The Essentiality of B Chain in Stabilizing the Structure of the A Chain in β_1-Bungarotoxin from *Bungarus multicinctus Venom* 233
Long-sen Chang, Shinne-ren Lin, Chun-chang Chang, and Chen-chung Yang

Comparison of the Low Energy Conformations of an Oncogenic and a Non-Oncogenic p21 Protein, Neither of Which Binds GTP or GDP 237
Adam Liwo, Kenneth D. Gibson, Harold A. Scheraga, Paul W. Brandt-Rauf, Regina Monaco, and Matthew R. Pincus

The Amino Acid Sequence of Glutamate Dehydrogenase from *Pyrococcus furiosus*, a Hyperthermophilic Archaebacterium 25
Bruno Maras, Sofia Valiante, Roberta Chiaraluce, Valerio Consalvi, Laura Politi, Mario De Rosa, Francesco Bossa, Roberto Scandurra, and Donatella Barra

Relationship Between Functional Properties and Structure of Ovalbumin 26
Marina Zemser, Michael Friedman, Jehoshua Katzhendler, Luis L. Greene, Abraham Minsky, and Shela Gorinstein

ANNOUNCEMENT 275

JOURNAL OF PROTEIN CHEMISTRY

Volume 13, Number 3 April 1994

CONTENTS

Co^{2+} Binding to α-Lactalbumin 277
Eugene A. Permyakov and Lawrence J. Berliner

A Statistical Analysis of Side-Chain Conformations in Proteins: Comparison with ECEPP Predictions 283
Akbar Nayeem and Harold A. Scheraga

Spectroscopic Evidence for Charge-Transfer Complexation in Monoclonal Antibodies That Bind Opiates 297
P. R. Droupadi, E. A. Myers, and D. S. Linthicum

Conformation of Bilirubin Oxidase in Native and Denatured States 307
Tatsuya Samejima, Chuen-Shang C. Wu, Kazunori Shibuya, Hiroyuki Kaji, Satoshi Koikeda, Keiichi Ando, and Jen Tsi Yang

Primate Relaxin: Synthesis of Gorilla and Rhesus Monkey Relaxins 315
John D. Wade, Selena S. Layden, Paul F. Lambert, Hariclia Kakouris, and Geoffrey W. Tregear

Denaturation Behavior of α-Chymotrypsinogen A in Urea and Alkylurea Solutions: Fluorescence Studies 323
Nataša Poklar, Gorazd Vesnaver, and Savo Lapanje

CIDNP Study of the Aromatic Side Chain Interactions in Myotoxin *a* 333
K. A. Muszkat, V. Preygerzon, and A. T. Tu

Synthesis of Cyclic Penta- and Hexapeptides: A General Synthetic Strategy on DAS Resin 339
Victoria Sowemimo, Denis Scanlon, Paul Jones, and David J. Craik

Reversible and Irreversible Modifications of β-Lactoglobulin Upon Exposure to Heat 347
Sabina Cairoli, Stefania Iametti, and Francesco Bonomi

ANNOUNCEMENT 355

JOURNAL OF PROTEIN CHEMISTRY

Volume 13, Number 4 **May 199**

CONTENTS

Potential βPP-Processing Proteinase Activities from Alzheimer's and Control Brain Tissues
Uri S. Ladror, Gary T. Wang, William L. Klein, Thomas F. Holzman, and Grant A. Krafft

A Simple Activity Assay for Thrombin and Hirudin 36
Q. D. Dang and E. Di Cera

Prediction of Conformation of Rat Galanin in the Presence and Absence of Water with the Use of Monte Carlo Methods and the ECEPP/3 Force Field 375
A. Liwo, S. Ołdziej, J. Ciarkowski, G. Kupryszewski, M. R. Pinkus, R. J. Wawak, S. Rackovsky, and H. A. Scheraga

Removal of the Projection Domain of Microtubule-Associated Protein 2 Alters Its Interaction with Tubulin
Arlene Fellous, Veena Prasad, Renée Ohayon, Mary Ann Jordan, and Richard F. Ludueña

Red-Edge Excitation Fluorescence Spectroscopy of Proteins in Reversed Micelles 3
Andrej Guz and Zygmunt Wasylewski

Immunoreactivity Between a Monoclonal Lupus Autoantibody and the Arginine/Aspartic Acid Repeats Within the U1-snRNP 70K Autoantigen is Conformationally Restricted 401
Stephen Pelsue and Paul F. Agris

Folding Pathway of Guanidine-Denatured Disulfide-Intact Wild-Type and Mutant Bovine Pancreatic Ribonuclease A 409
Robert W. Dodge, John H. Laity, David M. Rothwarf, Sakurako Shimotakahara, and Harold A. Scheraga

Conformational Stability of α-Lactalbumin Missing a Peptide Bond Between Asp^{66} and Pro^{67} 42
Satoshi Hamada, Yoshiko Moriyama, Koji Yamaguchi, and Kunio Takeda

ANNOUNCEMENT